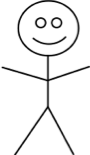
|  |  |  |
| --- | --- | --- |
|  | Student did not  submit the assignment.  **Form A** #2 | |
| **Due Date:**  Monday,  March 11th | **Student Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **Course Name: Geometry Period: \_\_\_\_\_\_\_\_\_**  **Teacher Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **English Teacher: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | |
| **Assignment Title:** | Tangent, Cosine, Sine…Oh so fine! | |
| **Assignment Summary:** | This portfolio assignment is designed to help you fully grasp the concept of using trigonometry to solve real-world problems. This includes finding the length of a missing side or a missing angle of a right triangle in using a clinometer.  By **Monday, March 11th**  you will turn in the following:   * **1 clinometer per group of two students** * **1 Clinometer Worksheet, based on a unique Chicago building** * **1 creative story about why you need to know they height of the building** | |
| **Role:** | **You must find the height of a building** in downtown Chicago using tangent, cosine, or sine **and tell a creative story as to why you need to know the height of this particular building**. You may work with a partner to calculate the height of your buildings, but you should have different horizontal distances (distance from the building) and you should have a different distance from eye level to the ground (because you are not the same height as your partner!)/ | |
| **Audience:** | Your audience is Ms. Mason and Ms. Young | |
| **Format:** | * **Typed, 1-inch margins, double spaced** * No excessive spacing of lines or margins * MLA format heading * Minimum length: 1.5 pages | * Include your own creative title * Staple assignment sheet to front of final draft; staple rough draft to back of final draft * Indent the beginning of each paragraph |
| **Procedure:** | Paragraph 1:   * Write a creative story about why you need to measure the height of a building * In that story, include the location/address/name of the building   Paragraph 2:   * Describe the information that you will need in order to find the height of the building * Include: **Distance** you stand from the building; **Distance from the ground to your eye level**; **Angle of Elevation;** the **Trig function** you will use; and **WHY** you need each particular piece of information.   Paragraph 3:   * Explain how you will use each of those pieces of information in the Trig function you chose. * Show how you solved the Trig ratio and what the height of the building is.   Paragraph 4:   * Tie the height of the building back to your story, explaining what will happen now that you have the height of the building. | |

Portfolio Scoring Rubric

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Exceeding**  **100-90%** | **Meeting**  **89-80%** | **Approaching**  **79-70%** | **Baseline**  **69-60%** | **Unacceptable**  **59% and ⇩** | **Points** |
| Content/CRS Expectations: | Student submits each of the following, and one or more demonstrate extra or supplemental work not expected/required:  \_\_Clinometer  \_\_Clinometer worksheet  \_\_Unique building  10 | Student submits each of the following:  \_\_Clinometer  \_\_Clinometer worksheet  \_\_Unique building  8 | Student is missing one of the following:  \_\_Clinometer  \_\_Clinometer worksheet  \_\_Unique building  7 | Student is missing two or more of the following:  \_\_Clinometer  \_\_Clinometer worksheet  \_\_Unique building  6 | Student is missing all of the following:  \_\_Clinometer  \_\_Clinometer worksheet  \_\_Unique building  0 | \_\_\_\_ / 10 |
| Student has correct calculations, discusses possible errors in calculation, uses their answer to find another value using a trig function, and **explains** these extra calculations.  30 | Student has correct calculations and **explains** these calculations within writing assignment.  24 | Student commits 1-2 errors in calculation and **explains** these calculations within the writing assignment;  OR  Student has correct calculations but does **not** explain these calculations within the writing assignment.  22 | Student commits 2-4 errors in calculation and **explains** these calculations within the writing assignment.  18 | Student commits more than 4 errors in calculation and does **not** explain these calculations within the writing assignment.  16 | \_\_\_\_ / 30 |
| Student creates a rationale for finding the height of the building that goes far beyond what would happen in everyday events. (EX: student creates a supernatural or fantastical explanation.)  20 | Student creates a rationale for finding the height of a building that incorporates at least one element that goes beyond what would happen in everyday events. (EX: one part of the story is creative or unique.)  16 | Student creates a rational for finding the height of a building that does not go beyond expectations of a regular **individual** finding the height of the building. (EX: story is about how a regular individual needs to find the height of a building.)  14 | Student creates a rationale for finding the height of the building that does not go beyond expectations of the **student** finding the height of the building. (EX: story is about how the student his or herself is asked to find the height of a building for the assignment.)  12 | Student does not demonstrate any creativity in writing assignment.  10 | \_\_\_\_ / 20 |
| Writing Expectations: | Student makes no spelling errors in the essay.    20 | Student makes 1-2 spelling errors in the essay.  16 | Student makes 3-4 spelling errors in the essay.  14 | Student makes 5-6 spelling errors in the essay.  12 | Student makes more than 6 spelling errors in the essay.  10 | \_\_\_\_ / 20 |
| Student uses an appropriate academic tone throughout the essay.  20 | Student uses a tone that is mostly academic throughout the essay, but at least once slips into a casual tone. (EX: inappropriate abbreviation)  16 | Student uses a tone that more than once slips into a casual tone. (EX: inappropriate abbreviation, 1st or 2nd person voice)  14 | Student uses a generally casual tone throughout the essay. (EX: multiple inappropriate abbreviations, 1st or 2nd person voice throughout the essay)  12 | Student uses an extremely casual tone throughout the essay. (EX: 1st or 2nd person voice throughout the essay, inappropriate topics or themes discussed)  10 | \_\_\_\_ / 20 |
|  |  |  |  |  | Total: \_\_\_\_\_ / 100 | |

**Diagram Template**

***Congruent*** *to the ACUTE angle of elevation.*



*ACUTE angle of elevation.*

*Height that you are using the clinometer to find*

**Height, from my feet to my eyes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Distance I stood from the building: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**The ACUTE angle of elevation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

*Height, from your feet to your eyes, in yards.*

*Distance from building, in yards.*

**Height of building + height, from feet to eyes = TOTAL height of building.**

***Congruent*** *to the ACUTE angle of elevation.*

***Congruent*** *to the ACUTE angle of elevation.*